

**MANAGEMENT OF RECEIVED DATA WITHIN HOST DEVICE  
USING LINKED LISTS**

**ABSTRACT OF THE DISCLOSURE**

5           A received data processing and storage system includes an input that receives data blocks corresponding to a plurality of input virtual channels. A routing module inspects the received data blocks and determines an output virtual channel for the data blocks based upon their respective input virtual channels. A receiver buffer instantiates input virtual channel linked lists, output virtual channel linked lists, and a free list. A linked list control module  
10       uses input virtual channel linked list registers, output virtual channel linked list registers, and free linked list registers to manage the linked lists instantiated by the receiver buffer. An output transmits data blocks corresponding to the plurality of output virtual channels. Data blocks are stored in the receiver buffer in both input virtual channel link lists and output virtual channel linked lists.